REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on January 29, 2002, and the references cited therewith.

Claims 32, 34, 38-40 and 51 are amended, and no claims are canceled or added; as a result, claims 30-51 are now pending in this application. The amendments to the claims more particularly define what Applicant considers the invention. Applicant believes that no new matter has been added with the amendments.

§102 Rejection of the Claims

Claim 30 was rejected under 35 USC § 102(b) as being anticipated by Joyce (U.S. Pat. No. 4,686,329). Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. *In re Dillon* 919 F.2d 688, 16 USPQ 2d 1897, 1908 (Fed. Cir. 1990) (en banc), cert. denied, 500 U.S. 904 (1991). It is not enough, however, that the prior art reference discloses all the claimed elements in isolation. Rather, ""[a]nticipation requires the presence in a single prior reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*"" *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added). Applicant respectfully traverses the rejection because the cited reference does not teach each and every claim element.

For example, claim 30 recites "a mouse pointing device positionable over a surface having a plurality of uniquely coded positions arranged in a gradient...". The term gradient is used in Applicant's specification to define a steadily decreasing (or increasing if direction is reversed) intensity along an axis. This is consistent with the Merriam Webster online dictionary, which includes the following definitions of gradient:

> **1 a :** the rate of regular or graded ascent or descent : INCLINATION **b :** a part sloping upward or downward.
>
> **2 :** change in the value of a quantity (as temperature, pressure, or concentration) with change in a given variable and especially per unit distance in a specified direction.

Applicant has reviewed Joyce and can find no teaching or disclosure of a gradient. Joyce relies on a unique pattern of lines or regions to identify a position on a tablet or overlay (see Abstract). As is clear from FIG. 3, the pattern on the tablet or overlay is based on the size of the spaces between the lines, not on a color or shading gradient. Furthermore, the spaces between the lines is neither uniformly increasing or decreasing, rather it varies as one moves right/left or up/down. As a result, Joyce does not teach or suggest the use of a surface having a gradient to uniquely identify positions. Therefore, Joyce does not anticipate claim 1, and the Examiner is respectfully requested to withdraw the rejection.

Claim 31 was rejected under 35 USC § 102(b) as being anticipated by Kirsch (U.S. Pat. No. 4,546,347). Applicant respectfully traverses the rejection, because Kirsch does not teach each and every element of Applicant's claims. For example, claim 31 recites in part "the surface having a plurality of uniquely coded positions arranged in a gradient." Applicant has reviewed Kirsch and can find no teaching or suggest of a gradient as used in Applicant's specification. The Office Action asserts that Kirsch's grid pattern in FIG. 2 teaches a gradient. Applicant respectfully disagrees with this interpretation. The grid pattern in FIG. 2 comprises four intensities, a horizontal line intensity, a vertical line intensity, an intersection intensity, and a space intensity (see column 3, lines 35-42 and claim 1). These intensities are consistent throughout the grid, they neither consistently increase or decrease as one moves left/right or top/down. In other words, all horizontal lines have a single intensity, and all vertical lines have a single intensity. As a result, Kirsch does not teach or suggest a surface having a gradient. The Examiner is respectfully requested to withdraw the rejection of claim 31.

Claims 40, 41, 43 and 51 were rejected under 35 USC § 102(b) as being anticipated by Kirsch (U.S. Pat. No. 4,390,347). Applicant respectfully traverses the rejection, because Kirsch does not teach each and every element of Applicant's claims. For example, claim 40 recites "a first sensor disposed within the housing and positionable over a first gradient having a plurality of positions uniquely varying in intensity level..." and a second sensor having similar characteristics. Claim 51 recites similar language. As detailed above, Kirsch does not teach a gradient. As a result, Kirsch does not teach each and every element of Applicant's claim 40 and 51. The Examiner is respectfully requested to withdraw the rejection of claims 40 and 51. Additionally,

claims 41 and 43 depend from claim 40, and introduce further patentable distinctions. These claims are also not anticipated by Kirsch for the reasons discussed above. The Examiner is respectfully requested to withdraw the rejection of claims 40, 41, 43 and 51.

§103 Rejection of the Claims

Claims 32-33 and 36-37 and 39 were rejected under 35 USC § 103(a) as being unpatentable over Pettypiece (U.S. Pat. No. 5,223,709) in view of Mak (U.S. Pat. No. 5,420,943). In order for the Examiner to establish a *prima facie* case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant''s disclosure. *M.P.E.P.* §§ 2142 (citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed.Cir. 1991)). Applicant respectfully traverses the rejection, because the cited references do not teach each and every element of Applicant's claims, and because no proper motivation to combine the references has been provided.

Amended claim 32 recites "such that the intensity level detected by the first sensor and the intensity level detected by the second sensor relate to a unique position of the control stick and such control stick position information is communicated." Claims 36 and 39 recite similar language. Applicant has reviewed the cited references and can find no teaching or disclosure of the recited language. Pettypiece discloses a system requiring three detectors (sensors) using three distinct areas to uniquely identify a position (detectors 60, 70, and 80). This is unlike Applicant's claims, which can operate using two sensors to uniquely identify a position using intensity level.

Furthermore, Mak does not teach or suggest the recited language. Mak discloses a grid of horizontal and diagonal lines that may vary in width (see column 4, lines 21-38). Mak does not teach that the lines vary in intensity. The Office Action cites column 3, lines 62-68 as teaching varying intensity, however Applicant could not find any mention of intensity in the cited passage.

As a result, neither Pettypiece nor Mak, alone or in combination, teach uniquely identifying a position using only a first and second sensor as recited in Applicant's claims. Therefore the Examiner is respectfully requested to withdraw the rejection of claims 32, 36 and 39.

In addition, claim 33 depends from claim 32, and claim 37 depends from claim 36. These dependent claims introduce further patentable distinctions, and are allowable for the same reasons as discussed above with respect to their respective base claims. Withdrawal of the rejection of claims 33 and 37 is respectfully requested.

Furthermore, no proper motivation to combine the references has been provided in the Office Action. The Office Action must provide specific, objective evidence of record for a finding of a suggestion or motivation to combine reference teachings and must explain the reasoning by which the evidence is deemed to support such a finding. *In re Sang Su Lee*, 277 F.3d 1338, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). The Office Action stated that the combination "would provide Pettypiece's system with the enhanced capability of providing a universal input device for the computer with a great deal of freedom". The statement is a mere conclusory statement of subjective belief, so Applicant respectfully submits that the Office Action has not provided objective evidence for a suggestion or motivation to combine the references.

Claims 34-35 were rejected under 35 USC § 103(a) as being unpatentable over Pettypiece. Applicant respectfully traverses the rejection, because Pettypiece does not teach each and every element of Applicant's claims.

Claim 34 recites "such that the intensity level detected by the first sensor and the intensity level detected by the second sensor relate to a unique position of the control stick and such control stick position information is communicated." As discussed above, Pettypiece required three detectors, and does not teach or disclose a first and second sensor to sense a unique position on a surface. Claim 35 depends from claim 34, and is allowable for the same reasons as claim 34. The Examiner is respectfully requested to withdraw the rejection of claims 34 and 35.

Furthermore, claims 34-35 were each rejected with a statement that element or elements recited in the claims were a "design choice." Applicant respectfully submits that in each case there is no support for the statement and no reference is cited to support the statement. Applicant

notes that the Examiner is taking Official Notice elements in claims 34-35 which are not found in the combination cited. Applicant respectfully traverses this Official Notice and requests the Examiner to either 1.) cite references in support of this position pursuant to M.P.E.P. §§ 2144.03, or 2.) submit an affidavit as required by 37 C.F.R. §§ 1.104(d)(2) to support the Examiner's position

Claim 38 was rejected under 35 USC § 103(a) as being unpatentable over Mak in view of Pettypiece. Applicant has amended claim 38 to more particularly define what Applicant considers the invention. The amendment includes recitations similar to that included in claim 36. Applicant respectfully submits that claim 38 is allowable for the same reasons as discussed above with respect to claim 36.

Claims 42 and 44-49 were rejected under 35 USC § 103(a) as being unpatentable over Kirsch (U.S. Pat. No. 4,390,873) hereinafter referred to (K-873) in view of Kirsch (U.S. Pat. No. 4,546,347) hereinafter referred to (K-347). Applicant respectfully traverses the rejection because the cited references do not teach each and every element of Applicant's claims. Each of claims 42 and 44-49 depend from claim 40, which recites in part "a first sensor disposed within the housing and positionable over a first gradient having a plurality of positions uniquely varying in intensity level" and a second sensor having a similar characteristics. As discussed above, K-347 does not teach or suggest such a gradient. In addition, Applicant has reviewed K-873 and can find no teaching or suggestion of the recited language. K-873 discloses a system in which a bit pattern, not intensity, is used to identify a relative position on a surface (see FIGs. 3B, 3C and column 3, line 63 to column 4, line 35). As a result, neither K-873 nor K-347 teach or disclose each and every element of Applicant's claims. The Examiner is respectfully requested to withdraw the rejection of claims 42 and 44-49.

Claim 50 was rejected under 35 USC § 103(a) as being unpatentable over Kirsch (K-873) in view of Pettypiece. This rejection is respectfully traversed, because the cited references do not teach or disclose each and every element of Applicant's claims. Like claims 42 and 44-49, claim 50 depends from claim 40. Applicant respectfully submits that claim 50 is allowable for the same reasons as discussed above with respect to claims 42 and 44-49. Withdrawal of the rejection of claim 50 is respectfully requested.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612-373-6954) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 50-0439.

Respectfully submitted,

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Date July 1, 2002 By _____

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The undersigned hereby certifies that this correspondence is being transmitted by facsimile (FAX NO. 703-872-9314) to: Commissioner of Patents, Washington, D.C. 20231, on this 1st day of July, 2002 (MONDAY).

Rodney L. Lacy
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